

SEA-BIRD ELECTRONICS, INC.

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SENSOR SERIAL NUMBER: 0854
CALIBRATION DATE: 23-Jan-10

SBE3 TEMPERATURE CALIBRATION DATA
ITS-90 TEMPERATURE SCALE

ITS-90 COEFFICIENTS

g = 4.83449146e-003
h = 7.17615838e-004
i = 5.20611211e-005
j = 6.51903412e-006
f0 = 1000.0

IPTS-68 COEFFICIENTS

a = 3.68122083e-003
b = 5.94149684e-004
c = 1.71413476e-005
d = 6.52121728e-006
f0 = 5970.960

BATH TEMP (ITS-90)	INSTRUMENT FREQ (Hz)	INST TEMP (ITS-90)	RESIDUAL (ITS-90)
-1.5001	5970.960	-1.5006	-0.00053
0.9998	6318.819	1.0003	0.00049
4.4998	6830.153	4.5004	0.00059
7.9999	7370.600	7.9999	-0.00001
11.4998	7940.894	11.4993	-0.00046
14.9998	8541.736	14.9993	-0.00051
18.4998	9173.677	18.4996	-0.00017
21.9998	9837.170	22.0000	0.00025
25.4998	10532.609	25.5002	0.00044
28.9998	11260.379	29.0002	0.00039
32.4999	12020.712	32.4994	-0.00049

Temperature ITS-90 = $1/\{g + h[\ln(f_0/f)] + i[\ln^2(f_0/f)] + j[\ln^3(f_0/f)]\} - 273.15$ (°C)

Temperature IPTS-68 = $1/\{a + b[\ln(f_0/f)] + c[\ln^2(f_0/f)] + d[\ln^3(f_0/f)]\} - 273.15$ (°C)

Following the recommendation of JPOTS: T_{68} is assumed to be $1.00024 * T_{90}$ (-2 to 35 °C)

Residual = instrument temperature - bath temperature

